ATTACHMENT J2

Charlotte/Douglas IAP Electric Distribution System

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J2 Charlotte/Douglas IAP Electric Distribution System

J2.1 Charlotte/Douglas IAP Overview

Charlotte/Douglas International Airport (IAP) is located six miles west of Charlotte, NC and is home to the 145th Airlift Wing. The base is located on the east side of the airport on a 79 acre parcel of highly developed land. There are a total of 41 buildings; 2 administrative, 3 services, and 36 industrial, amounting to approximately 330,000 square feet. The base has no residential or transient housing facilities. Action is now pending to acquire an additional 24 acres from the City of Charlotte for future expansion. Day-to-day activities are managed by 312 full-time personnel. This increases to 1350 personnel during the unit training drills conducted one weekend each month. The base also has two geographically separated units (GSU); Badin Air Guard Station (AGS), and Stanly County Airport Regional Training Center that are located approximately 60 miles northeast of Charlotte ANGB. The GSUs are not part of this solicitation. Projected future mission requirements and a steady increase in the base population have necessitated the construction of new facilities and the renovation or demolition of older facilities. A base supply warehouse (34,700 SF) is planned for construction in 2001.

J2.2 Electric Distribution System Description

J2.2.1 Electric Distribution System Fixed Equipment Inventory

The Charlotte/Douglas IAP electric distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, transformers, circuits, reclosers, utility poles, ductbanks, switches, and other ancillary fixed equipment. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the electric distribution system privatization are:

?? Airfield Lighting

?? Parking Lot Lights

?? Street Lights

J2.2.1.1 Description

Electrical power utility service enters the base and is metered at one location. Voltage is delivered and distributed at 12.47 (kV) through a radial feed, with wye connections on the secondary circuits. The primary distribution system consists of three-phase circuits rated at 15 kV all buried underground in ductbanks and/or conduit at an average depth of 2 to 3 feet. The ductbanks are tinted red and marked with warning tape. Multiple branches feed to 16 three phase pad mounted transformers that range from 45 kVA to 1000 kVA and one 15 kVA single phase transformer. The system includes three 3-way and three 4-way sectionalizing terminal boxes, 8 manholes, and a 15kV three-phase recloser with control panel. The system splits into a north branch and a south branch with no backup from alternative power sources. Mission-critical facilities, such as those located on the flight line, have portable diesel generators for backup power (not included in the solicitation). In addition, power for the engine test cell pad, fire rescue station, and group training area are supplied directly by Duke Power Company owned distribution lines and meters. The under ground circuits were installed in 1992 and are considered in excellent condition. Base personnel indicate the current capacity is adequate and sufficient to meet the planned expansion of base facilities.

J2.2.1.2 Inventory

Table 1 provides a general listing of the major electric distribution system fixed assets for the Charlotte/Douglas IAP electric distribution system included in the sale.

TABLE 1
Fixed Inventory
Electric Distribution System Charlotte/Douglas IAP

Item	Size	Quantity	Unit	Approximate Year of Construction
Underground Circuits (copper)	AWG			
3 Phase, 4 wire, 15 kVA, in conduit	#2	2490	LF	1992
3 Phase, 4 wire, 15 kVA, in conduit	#1	2840	LF	1992
3 Phase, Transformers	Nom kVA			
Oil filled, pad mounted	45	2	EA	1992
Oil filled, pad mounted	75	1	EA	1992
Oil filled, pad mounted	112.5	2	EA	1992
Oil filled, pad mounted	150	2	EA	1992
Oil filled, pad mounted	225	4	EA	1992
Oil filled, pad mounted	500	3	EA	1992
Oil filled, pad mounted	750	1	EA	1992
Oil filled, pad mounted	1000	1	EA	1992
Single Phase, Transformer	15	1	EA	1992
Utility Poles	40'	1	EA	1992

Switches/Underground (need phase and kV)	Type	No.		
30"x 66"x22", 15kV, 3 phase	3 Way	3	EA	1992
30"x 84"x 22", 15 kV, 3 phase	4 Way	3	EA	1992
3 Phase Recloser				
McGraw Edison, Form 3A, ME-1055B Rev R	Other	1	EA	1992
Conduit Only (no concrete or warning tape)	Size			
PVC, single run	4"	1125	LF	1992
PVC, double run (one run is spare)	4"	345	LF	1992
PVC, single run	3"	665	LF	1992
PVC, double run (one run is spare)	3"	295	LF	1992
Duct Bank				
PVC, 6 pipes ea, in concrete,	4"	2900	LF	1992
with warning tape (4 of 6 are spare)				
Manholes				
Pre-cast, concrete	4' x 6' x 6'	8	EA	1992

Notes:

AWG = American Wire Gauge
EA = each
LF = linear feet
Nom kVA = nominal kilovolt-amperes

PVC = polyvinyl chloride
KVA = kilovolt-amperes

J2.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2
Spare Parts
Electric Distribution System Charlotte/Douglas IAP

Qty	Item	Make/Model	Description	Remarks
None				

TABLE 3
Specialized Vehicles and Tools
Electric Distribution System Charlotte/Douglas IAP

Description	Quantity	Location	Maker
None			

J2.2.3 Electric Distribution System Manuals, Drawings, and Records

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4
Manuals, Drawings, and Records
Electric Distribution System Charlotte/Douglas IAP

Qty	Item Description	Remarks
1	Electrical Utility System Maps (electronic copy)	AutoCAD Release Version 14

J2.3 Specific Service Requirements

The service requirements for the Charlotte / Douglas IAP electric distribution system are as defined in the Section C Description / Specifications / Work Statement.

J2.4 Current Service Arrangement

?? Provider Name: Duke Power Company

?? Average Annual Usage: 4,230,000 kWh for 2000

?? Maximum Monthly Use: 412,000 kWh

?? Minimum Monthly Use: 281,000 kWh

?? Peak demand: 13,190 kW

J2.5 Secondary Metering

J2.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3 and J2.6 below.

TABLE 5
Existing Secondary Meters
Electric Distribution System Charlotte/Douglas IAP

Meter Location	Meter Description
None	

J2.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13 Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3 and J2.6 below.

TABLE 6
New Secondary Meters
Electric Distribution System Charlotte/Douglas IAP

Meter Location	Meter Description
None	

J2.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to the person identified at time of contract award.

2. Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the person identified at time of contract award.

3. Meter Reading Report. The monthly meter reading report shall show the current and previous months' readings for all secondary meters (if any). The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous

month. Meter reading reports shall be submitted to the person identified at time of contract award.

4. System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to the person identified at time of contract award.

J2.7 Energy Saving Projects

IAW Paragraph C.3 Requirement, the following projects have been implemented on the distribution system by the Government for energy conservation purposes.

None

J2.8 Service Area

IAW Paragraph C.4 Service Area, the service area is defined as all areas within the Charlotte/Douglas IAP boundaries.

J2.9 Off-Installation Sites

No off-installation sites are included in the sale of the Charlotte/Douglas IAP electric distribution system.

J2.10 Specific Transition Requirements

IAW Paragraph C.13 Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer.

TABLE 7
Service Connections and Disconnections
Electric Distribution System Charlotte/Douglas IAP

Location	Description
None	

J2.11 Government Recognized System Deficiencies

Table 8 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Charlotte/Douglas IAP electric distribution system. If the system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewals and Replacements Plan process and will be recovered through Schedule L-3. Renewal and replacement projects will be recovered through Sub-CLIN AB.

TABLE 8
System Deficiencies
Electric Distribution System Charlotte/Douglas IAP

Project Location	Project Description
None	